

## REMARKS

In the Office Action, the specification is objected; claims 1, 3, 6, 8, 13, 14, and 16-18 are objected; claims 1-19 are rejected under 35 U.S.C. §112, second paragraph; claims 6, 7 and 12 are rejected under 35 U.S.C. §112, first paragraph; and claims 1-7 are rejected under 35 U.S.C. §101. Claims 1-19 have been canceled; claims 20-37 have been added; and the specification has been amended. Applicants believe that the objections and rejections have been overcome in view of the amendments and for the reasons set forth below.

At the outset, claims 1-19 have been canceled, thus rendering moot the rejections and objections in view of same. In place of claims 1-19, Applicants have added new claims 20-37 to address the objections and rejections of claims 1-19. Further, Applicants provide below a number of reasons in further support of the allowability of the claims as presently pending. In view of same, Applicants believe that the objections and rejections should be withdrawn.

With respect to the rejection of claim 4 under 35 U.S.C. §112, second paragraph, the Patent Office alleges that the claim term "functional peptides" is unclear. Claim 4 has been canceled as previously discussed, but new claim 24 recites that the gene coding for a polypeptide of interest is selected from the group consisting of genes encoding enzymes, cell surface proteins, and functional peptides. Further, the specification provides that the gene coding for a polypeptide of interest includes genes encoding enzymes, cell surface proteins or functional peptides, such as, for example, dextranucrase, glycosyltransferase, phytase, transglutaminase, peptidase, phenylalanine ammonia lyase, protease, cell surface antigens, bacteriocins, hormones and insulin. Thus, Applicants believe that this claim term is sufficiently clear in meaning and scope as further supported by the specification.

With respect to the rejection of claim 6 under 35 U.S.C. §112, first and second paragraphs, the Patent Office alleges that the claim term "catabolite responsive element" is unclear and that claim 6 is not enabled. Claim 6 has been canceled as previously discussed, but new claim 25 recites an isolated DNA expression construct according to claim 20 that is devoid of catabolite responsive elements. Indeed, Applicants believe that one skilled in the art would understand this term to be an alternative expression for lac repressor. This level of understanding should also allow one skilled in the art to practice the claimed invention without

undue experimentation. Thus, Applicants believe that the term "catabolite responsive element" is clear in meaning and scope and that new claim 25 satisfies the enablement requirement.

With respect to the rejection of claim 7 under 35 U.S.C. §112, first and second paragraphs, the claim term at issue is "functional variant thereof". Claim 7 has been canceled as previously discussed, but new claim 26 recites an isolated DNA sequence encoding the lac repressor protein of *Lactobacillus delbrueckii* subsp. *lactis* as indentified by SEQ ID NO: 2 or functional variant thereof. Indeed, original claim 7 recited a DNA sequence coding for the lac repressor protein of *lactobacillus delbrueckii* as indentified by SEQ ID No. 2 or functional variant thereof. Further, the specification should provide sufficient guidance to one skilled in the art to practice the claimed invention as required by claim 26. For example, Fig. 4 should provide sufficient guidance to the skilled artisan to determine functional variants of SEQ ID No. 2 which retain binding capabilities to the DNA sequence as identified by SEQ ID No. 9. Thus, the written description and enablement requirements should be satisfied with respect to same, and, further, the scope and content of claim 7 should be clear in meaning and scope.

With respect to the rejection of claim 12 under 35 U.S.C. §112, first paragraph, claim 12 has been canceled, and new claim 32 recites that the DNA sequence of the recombinant microorganism is a plasmid, thus rendering this rejection moot. In any event, Applicants are submitting herewith a copy of the deposit information for CNCM I-2089, CNCM I-2090 and CNCM I-2091. Therefore, Applicants believe that this rejection should be withdrawn.

The Patent Office also requests further information regarding the DNA sequences associated with Figures 1-3, in alleged compliance with the Sequence Listing requirements. However, Applicants believe that Figures 1-3 are sufficiently described in the written description of the specification such that one skilled in the art would readily understand the meaning and content of same. See, for example, Specification, p. 9, lines 3-11. Further, Applicants believe that one skilled in the art would be able to ascertain the scope and meaning of the presently pending claims so as to be able to readily practice the claimed invention as previously discussed. Therefore, Applicants believe that they have presented the above-referenced application in condition for allowance.

Further, the Patent Office objects to the specification as allegedly being confusing with respect to SEQ ID NO: 22. Again, Applicants believe that the scope and content of the pending

claims as fully supported in the specification should be understood such that one skilled in the art can readily practice same as previously discussed. Therefore, Applicants do not believe that one skilled in the art would consider the specification to be confusing with respect to SEQ ID NO: 22.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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